



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,309	11/14/2003	Victor A. Quattrini	TELE03-00004	1223

23990 7590 02/20/2007  
DOCKET CLERK  
P.O. DRAWER 800889  
DALLAS, TX 75380

EXAMINER
----------

BEAUCHAINE, MARK J

ART UNIT	PAPER NUMBER
----------	--------------

3653

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/713,309

Applicant(s)

QUATTRINI ET AL.

Examiner

Mark J. Beauchaine

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claims 3-7 are objected to because of the following informalities:

The term "tack of coins" (claim 3, line 3) appears to be a misprint. The term "absence of coin" (claim 3, line 4) is improper grammar.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The relationship between the elements "a sensor" (claim 1, line 2) and "at least one sensor" (claim 1, line 2) is ambiguous. Is "a sensor" a sensor assembly?

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Patent Number US 6,371,845 B1 by Ishida et al ("Ishida"). The coin dispenser disclosed by Ishida is operated by performing steps comprising establishing a predetermined height of stack of coins 41 correlated to a predetermined number of coins in said stack (see Figures 2 and 3), sensing the presence of said coins at said predetermined height (via sensor 23) and generating a signal in response thereto (see column 6, lines 47-56), storing the number of coins contained in a full stack of coins in response to said sensor signal (via RAM 13), and counting the number of dispensing operations and subtracting said number of dispensing operations from said stored number of coins in a full stack to determine the number of coins remaining in the stack (see Figure 5).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Application Publication Number US 2004/0045787 A1 by Zimmerman ("Zimmerman") in view of Patent Number 4,371,783 by Grimmell et al ("Grimmell"). The coin presence sensor 5 disclosed by Zimmerman comprises at least one sensor 11 mounted on one side of receptacle 2 (see Figure 6), said at least one sensor further comprising a light transmitting device for transmitting light into said receptacle, wherein said light is reflected off said coins when present, and a light receiving device for receiving the reflected light when coins are present (see paragraph 0037). Said light receiving device generates a first signal when coins are present and a second signal when coins are not present (see paragraphs 0040 and 0043 and Figure 11).

Zimmerman further discloses a coin supply arranged in a stack of coins and said sensor being positioned at a predetermined height to indicate the presence of absence of a coin at said predetermined height. Said predetermined height is correlated to a predetermined value of coin (see paragraph 0034, lines 8-12), and is at the top, the bottom, or in between the top and bottom of a coin stack (see Figure 6) to determine filled, near depletion and depletion states, respectively.

Zimmerman fails to disclose a mask and access port. Grimmell teaches a sensor comprising light transmitting device 2a, light receiving device 5 and mask 2 mounted on said sensor via an access port and having apertures constructed therein aligned with said transmitting and receiving devices (see Figure 1) to isolate the receiving device from exposure to transmitted light prior to reflection for the purpose of evaluating the

characteristics of an article. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the mask of Grimmell into the sensor of Zimmerman for the purpose of evaluating the characteristics of an article.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman in view of Grimmell as applied to claim 1 above, and further in view of Patent Number 5,755,618 by Mothwurf ("Mothwurf"). Zimmerman fails to disclose a photodiode transmitter, a phototransistor receptor and an access port. Mothwurf teaches coin sensors 641 (see Figures 2 and 4) comprising photodiode transmitters and phototransistor receptors (see claims 3 and 4, respectively) for the purpose of detecting the presence or absence of coins within a receptacle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the photodiode transmitters and phototransistor receptors of Mothwurf into the sensor of Zimmerman/Grimmell for the purpose of detecting the presence or absence of coins within a receptacle.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman in view of Grimmell as applied to claim 1 above, and further in view of Patent Number 4,746,319 by Zwieg et al ("Zwieg"). Zimmerman/Grimmell fails to disclose said first and second signals being different output voltages. Zwieg teaches coin-detecting light sensor 37 generating first and second signals that are different voltage outputs (see column 5, lines 3-45) for the purpose of detecting the presence of

Art Unit: 3653

a coin. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the first and second signals of Zwieg into the apparatus of Zimmerman/Grimmell for the purpose of detecting the presence of a coin.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark J. Beauchaine whose telephone number is (571)272-6934. The examiner can normally be reached on 8:00AM through 5:00PM Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mjb



PATRICK MACKEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600